Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-334

P-8A Poseidon Multi-Mission Maritime Aircraft (P-8A)

As of FY 2019 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Sensitivity Originator

No originator info Available at this time.

Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name
P-8A Poseidon Multi-Mission Maritime Aircraft (P-8A)

DoD Component
Navy

Responsible Office

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References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Progam Baseline (APB) dated October 22, 2010

Approved APB

Navy Acquisition Executive (NAE) Approved Acquisition Program Baseline (APB) dated February 7, 2018

Mission and Description

The primary roles of P-8A Poseidon Multi-mission Maritime Aircraft (P-8A) are persistent Anti-Submarine Warfare and Anti-Surface Warfare. The P-8A is the replacement system for the P-3C, Orion. The P-8A, is based on the 737-800 ERX developed by The Boeing Company. The management of the contracted effort is located at The Boeing Company in Seattle, Washington. The system requirements are based on the P-8A CPD #791-88-09, validated and approved on June 22, 2009. The P-8A system will sustain and improve the armed maritime and littoral Intelligence, Surveillance, and Reconnaissance capabilities for United States Naval forces in traditional, joint and combined roles to counter changing and emerging threats. The P-8A program is structured on an evolutionary systems replacement approach that aligns the processes employed for requirements definition, acquisition strategy, and system development into a dynamic and flexible means to attain the strategic vision for tomorrow's Naval forces. The P-8A is part of the Maritime Patrol and Reconnaissance Force Family of Systems that also includes the MQ-4C Triton Unmanned Aircraft System, the EP-3, and the Tactical Operations Center.

Executive Summary

Program Highlights Since Last Report

In 2017, the Maritime Patrol & Reconnaissance Aircraft program office remained focused on P-8A aircraft production, development and integration of incremental upgrades to system capabilities, Fleet sustainment, and strengthening P-8A partnerships with our allies.

P-8A aircraft deliveries continued on schedule in support of the U.S. Navy (USN) fleet squadron transition from P-3C to P-8A. Nine of eleven planned aircraft production lots and associated logistics and training support are on contract with Boeing Defense Space and Security (BDS). As of February 2018, USN fleet squadrons have taken delivery of 66 of 98 contracted aircraft, with deliveries averaging three weeks early. P-8A fleet transition training is complete for all six east coast fleet squadrons, one fleet replacement squadron, and two of six west coast squadrons. Fleet transition training is on track to complete in FY 2020. Ongoing production initiatives are focused on proactively coordinating with allies, adjusting aircraft delivery schedules and accelerating acquisition milestones to maintain cost efficient P-8 aircraft build rates as Boeing Commercial Aircraft transitions their commercial 737 manufacturing line from a 737 Next Generation (NG) variant to a 737 MAX variant. Once that 737 transition is complete (estimated FY 2019), P-8 will be the only aircraft still being built using the 737NG as the commercial baseline.

P-8A Inc 2 Engineering Change Proposals (ECPs) 1-3 Multi-static Active Coherent (MAC), Automated Identification System, Rapid Capability Insertion, High Altitude Anti-Submarine Warfare (ASW) all completed fielding in FY 2017. The Navy is on track to field Inc 2 High Altitude Anti-Submarine Warfare Weapon Capability (HAAWC) in FY 2020, as paced by HAAWC production. P-8A Inc 3 consists of four separate ECPs 4-7 which incrementally increases warfighting capability and subject to the same acquisition and Congressional oversight as P-8A Inc 1 and inc 2. The ECPs in Inc 3 execute on timelines independent of one another to expedite fielding the capabilities to the fleet. They are independent of each other with the exception that ECP 7 requires ECP 6 Combat System hardware and architecture upgrades. ECP 4 was fielded in FY 2018 and provides software upgrades to Narrowband Satellite Communications (SATCOM) and Radar Computing Targeting. ECP 5 is in development test, fields in FY 2019 and provides an Anti-Surface Warfare Net Enabled Weapon, High Frequency radio Internet Protocol, Integrated Broadcast Service (IBS) filtering, new IBS receiver, and Harpoon II+. ECP 6 is in development, fields in FY 2023, and provides Net Ready KPP, Combat System Architecture upgrades, Wide Band (WB) SATCOM, Higher Than Secret processing, ASW Signals Intelligence, and enhanced track management (Minotaur). ECP 7 is in development, fields in FY 2024, and provides an Enhanced MAC ASW capability. ECPs 4 and 5 capabilities are integrated through the existing aircraft mission architecture and are delivered through production cut-in (forward fit) and through field retrofit on previously delivered aircraft. ECP 6 will be delivered via depot-level retrofits and ECP 7 will be delivered as mission software. Inc 3 made significant progress in CY 2017 including the following major accomplishments: completed the ECP 4 Test Readiness Review and ECP 6 Application-Based Architecture Preliminary Design Review (PDR) in February 2017; completed ECP 5 Critical Design Review in May 2017; completed WB-SATCOM terminal PDR and awarded the ECP 4 Lot 7 forward fit incorporation in June 2017; awarded the ECP 5 retrofit non-recurring engineering contract and awarded the ECP 5 Lot 8 forward fit incorporation line contract in September 2017; and completed the ECP 6 System Functional Review in November 2017.

Australia has been a P-8A Cooperative Partner since April 2009, with the Royal Australian Air Force (RAAF) ordering 12 aircraft. As of December 2017, RAAF has taken delivery of six aircraft, with the first occurring in October 2016. Based upon the completion of ground based flight trainers which began delivering in August 2017, RAAF is on track to achieve their in-country Ready for Training capability in CY 2018. In August 2016, the United Kingdom (UK) was approved as Foreign Military Sales (FMS) partner, ordering nine P-8A aircraft, including two in FY 2017, and logistics support requirements. UK aircraft will begin deliveries in October 2019. In March 2017 Norway also became an FMS partner, with five aircraft expected to start delivering in CY 2021. These combined procurements and the commonality of the production configurations has produced unit cost savings for all partners, as well as substantial interoperability benefits during allied operations.

House Appropriations Committee - Defense and Senate Appropriations Committee - Defense have potential and conflicting reductions to the FY 2018 Inc 3 RDT&E budget. This uncertainty is causing delay in awarding the Platform Integration

contract, which is a sole source effort to BDS to integrate ECP 6 on test aircraft. This contract award is on the critical path to IOC, so the delay in award is also causing delay to fielding ECPs 6 and 7 capabilities to the Fleet. The magnitude of this delay will be determined upon enactment of the FY 2018 Appropriations Act.

The P-8A program deviated from the June 8, 2016 APB to fully support emergent Advanced Airborne Sensor (AAS) capability MILCON requirements. The AAS MILCON provides for Tactical Operations Center, Fleet Support Activity and Fleet Maintenance Activity requirements. A Program Deviation Report and revised APB were signed by the Assistant Secretary of the Navy (Research, Development and Acquisition) on February 7, 2018 supporting the addition of AAS MILCON requirements.

There are no significant software-related issues with this program at this time.

History of Significant Developments Since Program Initiation

History of Significant Developments Since Program Initiation	
Date	**Significant Development Description**
February 2000	The Broad Area Maritime and Littoral Armed Intelligence Surveillance and Reconnaissance Mission Needs Statement was validated and approved by the JROC.
April 2000	The P-8A Poseidon (formerly Multi-Mission Maritime Aircraft (MMA)) program received Milestone 0 approval to enter Concept Exploration.
January 2002	P-8A received approval to enter the Component Advanced Development (CAD) work effort on January 18, 2002. CAD included competitively awarded contracts to Lockheed Martin for the Orion 21 concept (P-3 derivative) and to Boeing for the military derivative of the 737 aircraft.
December 2003	The MMA ORD/CDD was validated and approved by JROC.
June 2004	Milestone (MS) B ADM signed and the System Development and Demonstration contract awarded to Boeing for the 737-800 ERX based system.
June 2007	The P-8A program conducted the Critical Design Review.
December 2008	The Record of Decision was approved for basing 12 P-8A squadrons and one FRS at Naval Air Station (NAS) Jacksonville, Florida, NAS Whidbey Island, Washington, and Marine Corps Base Hawaii at Kaneohe Bay, Hawaii.
April 2009	Australia joined as a cooperative partner of P-8A Increment 2 (Inc 2). The Inc 2 Memorandum of Understanding (MOU) authorizes Australian participation in P-8A Inc 2 development.
April 2009	The P-8A program completed the Interim Program Review and awarded the Advance Acquisition Contract for LRIP Advance Procurement (AP).
August 2010	The USD (AT&L) signed the MS C ADM granting authorization to: proceed with LRIP Lots I through III that included six aircraft in FY 2010,seven aircraft in FY 2011, and 11 aircraft in FY 2012. In addition, the MS C ADM approved the request to obligate FY 2012 AP funding for FRP and authorized the Navy to proceed with Automatic Identification System, Multi-Static Active Coherent, High Altitude ASW Weapon Capability, Rapid Capability Insertion, Acoustics Algorithms, and Tactical Operations Center updates.
January 2011	The LRIP Lot I contract was definitized for six aircraft.
November 2011	The LRIP Lot II contract was definitized for seven aircraft.
March 2012	The Production, Sustainment, and Follow-on Development MOU authorizes Australian procurement of Inc 2 capable P-8A aircraft, participation in development of common sustainment strategies for the life of the aircraft, and participation in development of new platform capabilities.
September 2012	The LRIP Lot III contract was definitized for 11 aircraft.
July 2013	In order to maintain fleet transition rates, the USD (AT&L) approved a change to the P-8A Acquisition Strategy to add a fourth lot of 13 LRIP aircraft in FY 2013.
July 2013	The LRIP Lot IV contract was definitized for 13 aircraft.
November 2013	The P-8A achieved IOC.
December 2013	The P-8A commenced first Fleet operational deployment.
January 2014	The USD (AT&L) signed the FRP ADM approving the FRP decision.
February 2014	The Australian government announced its plan to purchase eight P-8A aircraft and supporting infrastructure.

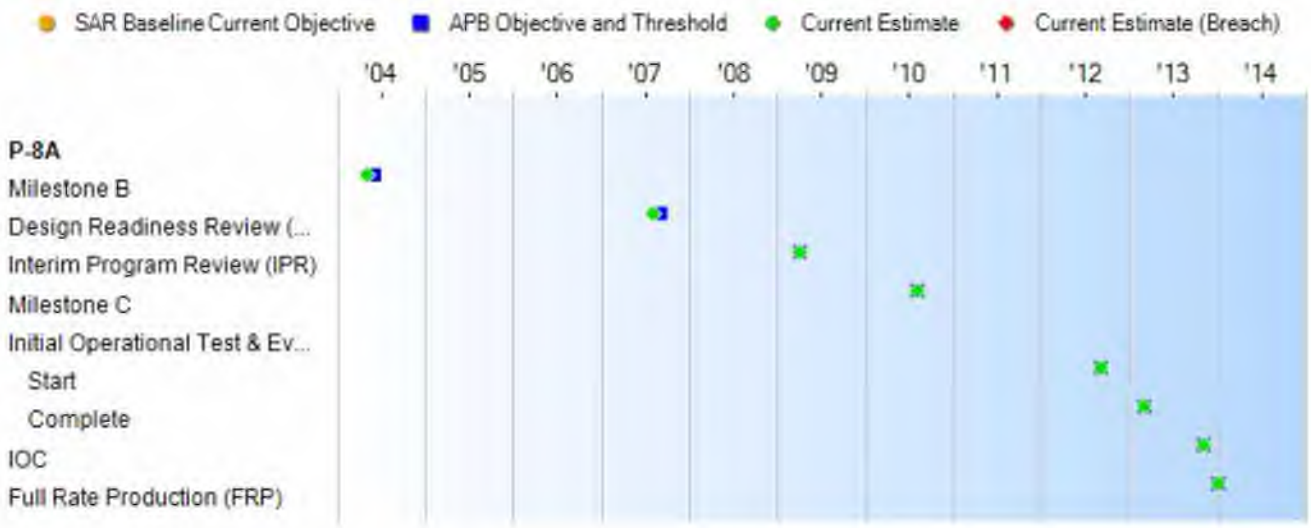
February 2014	The FRP I (Lot V) contract was definitized for 16 aircraft.
August 2015	The FRP II Lot VI P-8A production contract definitized for nine USN and four Royal Australian Air Force (RAAF) Lot VI aircraft.
January 2016	P-8A FRP Lot VII (FY 2016 Aircraft Procurement, Navy (APN)-1, quantity of 16 USN and four RAAF aircraft) production contract option awarded.
February 2016	Two additional USN P-8A FRP Lot VII aircraft procured following the Department of the Navy's Congressional notification of the use of Buy to Budget authority under 10 United States Code 2308 received on February 22, 2016. Oneaircraft was procured using FY 2014 APN-1, and one aircraft was procured using FY 2016 APN-1.
March 2016	USD (AT&L) approved an updated P-8A Acquisition Strategy, incorporating the Inc 3capabilities into the baseline program as a series of Engineering Change Proposals.
April 2016	USD (AT&L) signed the ADM for P-8A Inc 3.
May 2016	The P-8A was re-designated to an ACAT 1C program by USD (AT&L).
June 2016	ASN (RDA) signed the APB to support the Inc 3 strategy change.
August 2016	United Kingdom (UK) Embassy informed Navy International Programs Office that UK signed P-8A Letters of Offer and Acceptance (LOAs) provided in June 2016. The FMS cases provides for nine P-8A aircraft, initial logistics support and maintenance trainer suite.
October 2016	The first RAAF aircraft delivered October 19, 2016 (~6 weeks early) in Boeing Seattle and repositioned to Canberra, Australia on November 15, 2016 Australian Eastern Daylight Time.
December 2016	U.S. Navy/Boeing signed a Memorandum of Agreement for P-8A production unit pricing for FRP Lots VIII-X for 49 aircraft (31 USN, four RAAF, nine UK, and five Norway).
March 2017	Norway P-8A LOA signature by the Director, Norway Defense Material Agency completed during a ceremony in Oslo, Norway onMarch 29, 2017with US Embassy leadership in attendance. The FMS case provides for five P-8A aircraft, associated services and equipment.
March 2017	The FRP Lot VIII (FY2017 APN-1, quantity of 11 USN, four RAAF and two UK aircraft) production contract awarded.
December 2017	The P-8A FRP Lot IX (FY2018 APN-1, quantity of seven USN and three UK aircraft and segregable efforts) contract awarded.

Threshold Breaches

APB Breaches		
Schedule		☐
Performance		☐
Cost	RDT&E	☐
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
O&S Cost		☐
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule



Schedule Events				
Events	**SAR Baseline Production Estimate**	**Current APB Production Objective/Threshold**		**Current Estimate**
Milestone B	May 2004	Jun 2004	Jun 2004	May 2004
Design Readiness Review (DRR)	Jul 2007	Sep 2007	Sep 2007	Aug 2007
Interim Program Review (IPR)	Apr 2009	Apr 2009	Apr 2009	Apr 2009
Milestone C	May 2010	Aug 2010	Aug 2010	Aug 2010
Initial Operational Test & Evaluation (IOT&E)				
Start	Apr 2012	Sep 2012	Sep 2012	Sep 2012
Complete	Feb 2013	Mar 2013	Mar 2013	Mar 2013
IOC	Jul 2013	Nov 2013	Nov 2013	Nov 2013
Full Rate Production (FRP)	Apr 2013	Jan 2014	Jan 2014	Jan 2014

Change Explanations

None

Performance

Performance Characteristics				
SAR Baseline Production Estimate	**Current APB Production Objective/Threshold**		**Demonstrated Performance**	**Current Estimate**
Mission Radius/Endurance Subsurface attack (nm)				
>=1,600/>=4	>=1,600/>=4	1,200/4	1,262	1,262
Mixed Stores Loadout (ASW)(lbs)				
12,500	12,500	10,000	13,275	25,000
Initial On-station Altitude (ft)				
49,000	49,000	25,000	39,000	39,000
Operational Availability (ASW)				
.8	(O = T) .8	.8	.8	.8
Force Protection (%)				
100	(O = T) 100	100	100	100
Net-Ready				
Fully support execution of joint operational activities	Fully support execution of joint operational activities	Fully support execution of joint critical operational activities	Met initial NR KPP compliance per MS-B exit criteria. Demonstration of full NR compliance is TBD.	Fully support execution of joint critical operational activities by Increment 3 IOC.
Net Enabled ASUW Weapon				
N/A	Capability to act in the CC and 3PS roles in the NEW architecture including launching the weapon, in-flight control of the weapon, terminal guidance of the weapon, transferring/receiving control to/from another platform, and designating or acting as a 3PS.	Capability to act in the CC role in the NEW architecture including launching the weapon, in-flight control of the weapon, and terminal guidance of the weapon.	TBD	Capability to act in the CC and 3PS roles in the NEW architecture including launching the weapon, in-flight control of the weapon, terminal guidance of the weapon, transferring/receiving control to/from another platform, and designating or acting as a 3PS.
Operational Availability (Ao ASUW)				
N/A	Ao ASUW > 0.8	Ao ASUW = 0.8	TBD	Ao ASUW > 0.8

Classified Performance information is provided in the classified annex to this submission.

Requirements Reference

CPD (Increment 1), Change 2, dated May 8, 2012 and CDD (Increment 2 and 3) dated April 4, 2016

Change Explanations

None

Notes

On February 7, 2018 ASN (RDA) signed the APB supporting the addition of Advanced Airborne Sensor (AAS) capability MILCON funding to the APB cost parameters.

P-8A Operational Availability (Ao) ASW demonstrated performance improved from 0.69 to 0.8 during this reporting period. Proactive steps are in place to continue to improve Ao ASW demonstrated performance.

Acronyms and Abbreviations

3PS - Third Person Source
AAS - Advanced Airborne Sensor
Ao - Operational Availability
ASN (RDA) - Assistant Secretary for the Navy (Research, Development and Acquisition)
ASUW - Anti-Surface Warfare
ASW - Anti-Submarine Warfare
CC - Current Controller
ft - Feet
JITC - Joint Interoperability Test Command
lbs - Pounds
NEW - Network Enabled Weapon
nm - Nautical miles

Track to Budget

General Notes

The RDT&E cost parameters include the costs associated with Project Unit 2696 (Inc 1 System Development and Demonstration), Project Unit 3181 (Inc 2 next Phase of Capabilities (previously called Spiral One)) and Project Unit 3218 (P-8A Inc 3 (previously called Spiral Two)). Inc 2 capabilities were integrated into the P-8A through Engineering Change Proposals (ECPs) as approved in the Milestone C ADM, dated August 27, 2010. These ECPs are: Automatic Identification System; Multi-static Active Coherent (MAC); High Altitude Anti-submarine Warfare Weapon Capability and Sensors; Rapid Capability Insertion; and Tactical Operations Center updates. Inc 3 capability was added to the APB cost parameters in accordance with the P-8A APB signed June 8, 2016. Inc 3 capability integration includes: ECP 4 Ultra High Frequency Satellite Communications (SATCOM) Demand Assigned Multiple Access integrated waveform & Targeting Capability upgrades; ECP 5 includes Link-16 message [Net Enabled Weapon (J11), third party targeting (J12), and Electronic Warfare coordination (J14)], High Frequency radio Internet Protocol, Integrated Broadcast Service (IBS) filtering, new IBS receiver, and Harpoon II+ upgrade; ECP 6 incorporates Net Ready KPP, a Combat System architecture upgrade, ASW Signals Intelligence, Higher than Secret processing, enhanced track management (Minotaur) and Wideband SATCOM; and ECP 7 incorporates Enhanced MAC capabilities via the Combat System architecture.

Track to budget change reflects MILCON changes in this report. Advanced Airborne Sensor (AAS) capability MILCON funding was added to the APB cost parameters in accordance with the P-8A APB signed February 7, 2018.

RDT&E

Appn		BA	PE
Navy	1319	05	0605500N

Project	Name
2696	Multi-mission Maritime Aircraft (Shared)
3181	P-8A Spiral One Development (Shared) (Sunk)
Notes:	P-8A Multi-mission Maritime Aircraft Increment 2 (formerly Spiral 1)
3218	P-8A Spiral Two Development (Shared) (Sunk)
Notes:	P-8A Multi-mission Maritime Aircraft Increment 3 (formerly Spiral 2)

Appn		BA	PE
Navy	1319	05	0605504N

Project	Name
3218	P-8A Spiral Two Development
Notes:	P-8A Multi-mission Maritime Aircraft Increment 3 (formerly Spiral 2)

Procurement

Appn		BA	PE
Navy	1506	01	0204251N

Line Item	Name
0193	P-8A Poseidon

Appn		BA	PE
Navy	1506	06	0204251N

Line Item	Name

0605	Spares and Repair Parts	(Shared)

MILCON

Appn		BA	PE
Navy	1205	01	0203176N

Project	Name	
P512	AAS Tactical Operations Center	
Notes:	AAS TOC (COMFLTACT Okinawa)	

Appn		BA	PE
Navy	1205	01	0212176N

Project	Name	
P116	P-8A Detachment Support Facility	(Sunk)
Notes:	Joint Base Pearl Harbor Hickam	
P253	AAS Fleet Support Activity	
Notes:	AAS Fleet Support Activity (NAS WI)	
P259	P-8A Aircraft Apron and Support Facility	(Sunk)
Notes:	Naval Air Station Whidbey Island	
P334	P-8 Fleet Support Facility Addition	(Sunk)
Notes:	Naval Air Station Jacksonville	
P659	P-8 Training and Parking Apron Expansion	(Sunk)
Notes:	Naval Air Station Jacksonville Integrated Training Center	

Appn		BA	PE
Navy	1205	01	0703676N

Project	Name	
P630	P-8/MMA Facilities Modification	(Sunk)
Notes:	Naval Air Station Jacksonville (Facilities Modifications)	
P654	P-8A Hangar Upgrades	(Sunk)
Notes:	Naval Air Station Jacksonville	

Appn		BA	PE
Navy	1205	01	0712876N

Project	Name	
P655	P-8A Hangar & Training Facility	(Sunk)
Notes:	Naval Air Station Sigonella	
P955	P-8A Hangar & Training Facility	(Sunk)
Notes:	Naval Support Activity Bahrain	
P992	AAS Fleet Maintenance Activity & TOC	
Notes:	AAS Fleet Maintenance Activity & TOC	

Navy 1205 01 0805376N

Project	Name	
P146	MMA Test Facilities, Renovation & Modernization	(Sunk)
Notes:	Multi-mission Maritime Hangar Test Facility Modifications Naval Air Station Patuxent River	
P147	MMA Technical Supt Facs, Pax River MD	(Sunk)
Notes:	Multi-mission Maritime Hangar Test Facility Build Naval Air Station Patuxent River	

Navy 1205 01 0805976N

Project	Name	
P623	MMA Simulator Training Building	(Sunk)
Notes:	Naval Air Station Jacksonville (Build of Integrated Training Center)	

Navy 1205 01 0815976N

Project	Name	
P251	P-8A Hangar & Training Facility	(Sunk)
Notes:	Naval Air Station Whidbey Island	
P624	P-8A Training Facility	(Sunk)
Notes:	Naval Air Station Jacksonville	

Navy 1205 03 0901211N

Project	Name
P044	AAS MILCON Design Funds
Notes:	AAS MILCON Design Funds

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2010 $M			BY 2010 $M	TY $M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	8019.1	9232.5	10155.8	9246.3	7951.7	9406.2	9433.0
Procurement	23519.1	21508.5	23659.4	22202.9	25654.7	23833.9	24673.9
Flyaway	--	--	--	18197.1	--	--	20245.5
Recurring	--	--	--	17526.3	--	--	19477.9
Non Recurring	--	--	--	670.8	--	--	767.6
Support	--	--	--	4005.8	--	--	4428.4
Other Support	--	--	--	3502.6	--	--	3883.6
Initial Spares	--	--	--	503.2	--	--	544.8
MILCON	807.7	365.8	402.4	365.8	894.3	406.4	406.4
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	32345.9	31106.8	N/A	31815.0	34500.7	33646.5	34513.3

Current APB Cost Estimate Reference

The POE is an update to the P-8A FRP SCP and is supported by the methods employed by the Naval Air Systems Command Cost Team (AIR-4.2). The estimate reference is dated March 01, 2016

Cost Notes

Cost change reflects MILCON changes in this report. Advanced Airborne Sensor (AAS) capability MILCON funding was added to the APB cost parameters in accordance with the P-8A APB signed February 7, 2018.

In accordance with Section 842 of the National Defense Authorization Act for FY 2017, which amended title 10 U.S.C. § 2334, the Director of Cost Assessment and Program Evaluation, and the Secretary of the military department concerned or the head of the Defense Agency concerned, must issue guidance requiring a discussion of risk, the potential impacts of risk on program costs, and approaches to mitigate risk in cost estimates for MDAPs and major subprograms. The information required by the guidance is to be reported in each SAR. This guidance is not yet available; therefore, the information on cost risk is not contained in this SAR.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	5	5	5
Procurement	117	109	117
Total	122	114	122

Quantity Notes

Warfighting requirement is 117 production aircraft.

Cost and Funding

Funding Summary

Appropriation Summary FY 2019 President's Budget / December 2017 SAR (TY$ M)									
Appropriation	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
RDT&E	8513.9	190.7	167.9	149.1	150.8	129.0	131.6	0.0	9433.0
Procurement	19442.7	1418.6	2021.1	1695.9	95.6	0.0	0.0	0.0	24673.9
MILCON	347.4	4.2	54.8	0.0	0.0	0.0	0.0	0.0	406.4
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2019 Total	28304.0	1613.5	2243.8	1845.0	246.4	129.0	131.6	0.0	34513.3
PB 2018 Total	28313.5	1609.3	1804.4	1271.1	249.5	130.7	0.0	0.0	33378.5
Delta	-9.5	4.2	439.4	573.9	-3.1	-1.7	131.6	0.0	1134.8

Quantity Summary FY 2019 President's Budget / December 2017 SAR (TY$ M)										
Quantity	Undistributed	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Development	5	0	0	0	0	0	0	0	0	5
Production	0	91	7	10	9	0	0	0	0	117
PB 2019 Total	5	91	7	10	9	0	0	0	0	122
PB 2018 Total	5	91	7	7	6	0	0	0	0	116
Delta	0	0	0	3	3	0	0	0	0	6

Cost and Funding

Annual Funding By Appropriation

Annual Funding 1319 | RDT&E | Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2002	--	--	--	--	--	--	37.0
2003	--	--	--	--	--	--	65.3
2004	--	--	--	--	--	--	66.3
2005	--	--	--	--	--	--	470.9
2006	--	--	--	--	--	--	927.0
2007	--	--	--	--	--	--	1100.0
2008	--	--	--	--	--	--	860.0
2009	--	--	--	--	--	--	1089.7
2010	--	--	--	--	--	--	1125.7
2011	--	--	--	--	--	--	895.6
2012	--	--	--	--	--	--	580.8
2013	--	--	--	--	--	--	377.7
2014	--	--	--	--	--	--	247.4
2015	--	--	--	--	--	--	282.8
2016	--	--	--	--	--	--	227.6
2017	--	--	--	--	--	--	160.1
2018	--	--	--	--	--	--	190.7
2019	--	--	--	--	--	--	167.9
2020	--	--	--	--	--	--	149.1
2021	--	--	--	--	--	--	150.8
2022	--	--	--	--	--	--	129.0
2023	--	--	--	--	--	--	131.6
Subtotal	5	--	--	--	--	--	9433.0

Annual Funding 1319 | RDT&E | Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2010 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2002	--	--	--	--	--	--	43.1
2003	--	--	--	--	--	--	75.0
2004	--	--	--	--	--	--	74.1
2005	--	--	--	--	--	--	512.8
2006	--	--	--	--	--	--	979.0
2007	--	--	--	--	--	--	1134.0
2008	--	--	--	--	--	--	870.7
2009	--	--	--	--	--	--	1089.2
2010	--	--	--	--	--	--	1108.6
2011	--	--	--	--	--	--	861.4
2012	--	--	--	--	--	--	549.6
2013	--	--	--	--	--	--	353.7
2014	--	--	--	--	--	--	228.5
2015	--	--	--	--	--	--	258.0
2016	--	--	--	--	--	--	204.1
2017	--	--	--	--	--	--	141.2
2018	--	--	--	--	--	--	165.4
2019	--	--	--	--	--	--	143.0
2020	--	--	--	--	--	--	124.5
2021	--	--	--	--	--	--	123.4
2022	--	--	--	--	--	--	103.5
2023	--	--	--	--	--	--	103.5
Subtotal	5	--	--	--	--	--	9246.3

Annual Funding 1506 | Procurement | Aircraft Procurement, Navy							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2009	--	109.1	--	--	109.1	--	109.1
2010	6	1360.6	--	54.3	1414.9	383.9	1798.8
2011	7	1382.0	--	31.5	1413.5	492.3	1905.8
2012	11	1977.5	--	29.3	2006.8	280.8	2287.6
2013	13	2252.9	--	32.3	2285.2	454.4	2739.6
2014	17	2603.6	--	54.0	2657.6	558.6	3216.2
2015	9	1312.7	--	62.8	1375.5	795.8	2171.3
2016	17	2714.0	--	72.5	2786.5	444.8	3231.3
2017	11	1635.3	--	78.1	1713.4	269.6	1983.0
2018	7	1137.5	--	84.7	1222.2	196.4	1418.6
2019	10	1672.6	--	85.5	1758.1	263.0	2021.1
2020	9	1320.1	--	87.0	1407.1	288.8	1695.9
2021	--	--	--	95.6	95.6	--	95.6
Subtotal	117	19477.9	--	767.6	20245.5	4428.4	24673.9

Annual Funding 1506 | Procurement | Aircraft Procurement, Navy							
Fiscal Year	Quantity	BY 2010 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2009	--	107.8	--	--	107.8	--	107.8
2010	6	1317.1	--	52.6	1369.7	371.7	1741.4
2011	7	1311.9	--	29.9	1341.8	467.4	1809.2
2012	11	1851.0	--	27.4	1878.4	262.9	2141.3
2013	13	2086.6	--	29.9	2116.5	420.9	2537.4
2014	17	2381.1	--	49.4	2430.5	510.8	2941.3
2015	9	1183.4	--	56.6	1240.0	717.5	1957.5
2016	17	2403.0	--	64.2	2467.2	393.9	2861.1
2017	11	1423.4	--	68.0	1491.4	234.6	1726.0
2018	7	972.4	--	72.4	1044.8	168.0	1212.8
2019	10	1402.9	--	71.7	1474.6	220.6	1695.2
2020	9	1085.7	--	71.6	1157.3	237.5	1394.8
2021	--	--	--	77.1	77.1	--	77.1
Subtotal	117	17526.3	--	670.8	18197.1	4005.8	22202.9

FY 2021 Non-Recurring Flyaway reflects $95.6 million in Production Line Shutdown cost.

Cost Quantity Information 1506 | Procurement | Aircraft Procurement, Navy		
Fiscal Year	**Quantity**	**End Item Recurring Flyaway (Aligned With Quantity) BY 2010 $M**
2009	--	--
2010	6	1272.1
2011	7	1306.5
2012	11	1780.1
2013	13	2037.3
2014	17	2373.1
2015	9	1426.1
2016	17	2224.8
2017	11	1538.1
2018	7	959.6
2019	10	1371.9
2020	9	1236.7
2021	--	--
Subtotal	117	17526.3

Annual Funding 1205 | MILCON | Military Construction, Navy and Marine Corps	
Fiscal Year	TY $M Total Program
2006	5.7
2007	16.3
2008	--
2009	48.2
2010	5.9
2011	--
2012	31.2
2013	--
2014	100.7
2015	56.2
2016	83.2
2017	--
2018	4.2
2019	54.8
Subtotal	406.4

Annual Funding 1205 | MILCON | Military Construction, Navy and Marine Corps	
Fiscal Year	BY 2010 $M
	Total Program
2006	5.9
2007	16.6
2008	--
2009	47.5
2010	5.7
2011	--
2012	29.0
2013	--
2014	91.0
2015	49.6
2016	72.1
2017	--
2018	3.5
2019	44.9
Subtotal	365.8

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	6/4/2004	7/15/2013
Approved Quantity	34	37
Reference	Milestone B ADM	LRIP Lot IV ADM
Start Year	2010	2010
End Year	2012	2013

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the necessity to establish the initial production base and to achieve an orderly and efficient increase in both the production rate and industry workforce. All 37 LRIP aircraft have been delivered.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Description
Norway	3/29/2017	5		The Norway FMS Letter of Offer and Acceptance for five aircraft, associated services and equipment was signed March 29, 2017.
United Kingdom	7/26/2016	9	2288.0	Total cost based on Letter of Offer and Acceptance signed July 26, 2016. FMS Case UK-P-SAN provides for the procurement of nine aircraft and initial support. FMS Case UK-P-LVK provides for trainers and FMS Case UK-P-TGO provides for training.

Notes

The five Norway FMS P-8A aircraft will deliver in late CY 2021 / early CY 2022.

The UK FMS P-8A aircraft delivery schedule is two P-8A Lot VIII aircraft (CY 2019) with the 1st aircraft delivering in October 2019, three P-8A Lot IX aircraft (CY 2020), and four P-8A Lot X aircraft (CY 2021).

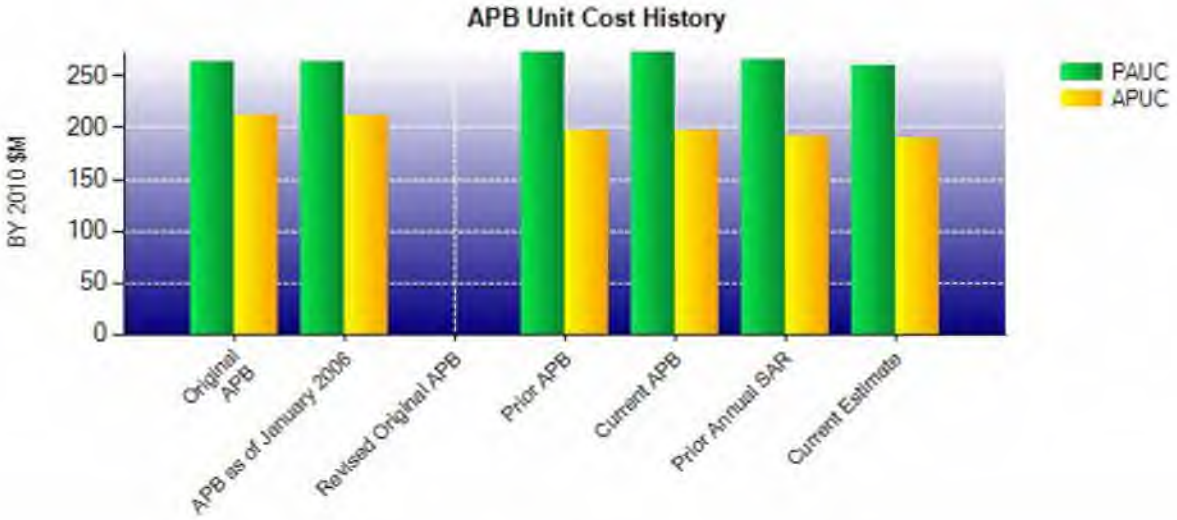
Nuclear Costs

None

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2010 $M Current UCR Baseline	BY 2010 $M Current Estimate (Dec 2017 SAR)	% Change
Program Acquisition Unit Cost			
Cost	31106.8	31815.0	
Quantity	114	122	
Unit Cost	272.867	260.779	-4.43
Average Procurement Unit Cost			
Cost	21508.5	22202.9	
Quantity	109	117	
Unit Cost	197.326	189.768	-3.83

Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2010 $M Original UCR Baseline (Jun 2004 APB)	BY 2010 $M Current Estimate (Dec 2017 SAR)	% Change
Program Acquisition Unit Cost			
Cost	30271.9	31815.0	
Quantity	115	122	
Unit Cost	263.234	260.779	-0.93
Average Procurement Unit Cost			
Cost	22791.2	22202.9	
Quantity	108	117	
Unit Cost	211.030	189.768	-10.08



APB Unit Cost History					
Item	Date	BY 2010 $M		TY $M	
		PAUC	APUC	PAUC	APUC
Original APB	Jun 2004	263.234	211.030	273.292	225.149
APB as of January 2006	Jun 2004	263.234	211.030	273.292	225.149
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Jun 2016	272.446	197.326	294.627	218.660
Current APB	Feb 2018	272.867	197.326	295.145	218.660
Prior Annual SAR	Dec 2016	265.828	192.299	287.746	213.393
Current Estimate	Dec 2017	260.779	189.768	282.896	210.888

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY $M)									
Initial PAUC Development Estimate	Changes								PAUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
273.292	3.671	-4.044	5.221	10.630	-17.830	0.000	11.853	9.501	282.793

Current SAR Baseline to Current Estimate (TY $M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
282.793	1.570	-0.185	4.120	8.310	-13.537	0.000	-0.175	0.103	282.896

Initial SAR Baseline to Current SAR Baseline (TY $M)									
Initial APUC Development Estimate	Changes								APUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
225.149	1.793	-3.468	5.332	0.000	-21.894	0.000	12.359	-5.878	219.271

Current SAR Baseline to Current Estimate (TY $M)									
APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
219.271	1.254	-0.193	3.663	1.115	-14.040	0.000	-0.182	-8.383	210.888

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	May 2004	May 2004	May 2004
Milestone C	N/A	May 2010	May 2010	Aug 2010
IOC	N/A	Jul 2013	Jul 2013	Nov 2013
Total Cost (TY $M)	N/A	31428.6	34500.7	34513.3
Total Quantity	N/A	115	122	122
PAUC	N/A	273.292	282.793	282.896

Cost Variance

Summary TY $M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	7951.7	25654.7	894.3	34500.7
Previous Changes				
Economic	+37.0	+192.0	+14.9	+243.9
Quantity	--	-1152.1	--	-1152.1
Schedule	+72.9	+354.6	+1.1	+428.6
Engineering	+1198.0	+111.7	-373.5	+936.2
Estimating	+84.8	-1447.4	-189.3	-1551.9
Other	--	--	--	--
Support	--	-26.9	--	-26.9
Subtotal	+1392.7	-1968.1	-546.8	-1122.2
Current Changes				
Economic	-6.1	-45.3	-1.0	-52.4
Quantity	--	+1129.6	--	+1129.6
Schedule	--	+74.0	--	+74.0
Engineering	--	+18.7	+58.9	+77.6
Estimating	+94.7	-195.3	+1.0	-99.6
Other	--	--	--	--
Support	--	+5.6	--	+5.6
Subtotal	+88.6	+987.3	+58.9	+1134.8
Total Changes	+1481.3	-980.8	-487.9	+12.6
CE - Cost Variance	9433.0	24673.9	406.4	34513.3
CE - Cost & Funding	9433.0	24673.9	406.4	34513.3

Summary BY 2010 $M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	8019.1	23519.1	807.7	32345.9
Previous Changes				
Economic	--	--	--	--
Quantity	--	-922.2	--	-922.2
Schedule	+68.1	-0.8	-0.4	+66.9
Engineering	+1023.2	+93.8	-328.6	+788.4
Estimating	+63.8	-1230.5	-162.1	-1328.8
Other	--	--	--	--
Support	--	-114.2	--	-114.2
Subtotal	+1155.1	-2173.9	-491.1	-1509.9
Current Changes				
Economic	--	--	--	--
Quantity	--	+931.0	--	+931.0
Schedule	--	+67.8	--	+67.8
Engineering	--	+15.4	+48.3	+63.7
Estimating	+72.1	-160.9	+0.9	-87.9
Other	--	--	--	--
Support	--	+4.4	--	+4.4
Subtotal	+72.1	+857.7	+49.2	+979.0
Total Changes	+1227.2	-1316.2	-441.9	-530.9
CE - Cost Variance	9246.3	22202.9	365.8	31815.0
CE - Cost & Funding	9246.3	22202.9	365.8	31815.0

Previous Estimate: December 2016

RDT&E	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-6.1
Revised estimate to reflect increase for continued P-8A Increment 3 integrated development and testing activities. (Estimating)	+70.4	+92.9
Adjustment for current and prior escalation. (Estimating)	+1.7	+1.8
RDT&E Subtotal	+72.1	+88.6

Procurement	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-45.3
Total Quantity variance resulting from an increase of six P-8A aircraft from 111 to 117. (Subtotal)	+797.6	+969.8
Quantity variance resulting from an increase of six P-8A aircraft from 111 to 117. (Quantity)	(+932.5)	(+1133.8)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+48.8)	(+59.3)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(+15.4)	(+18.7)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-199.1)	(-242.0)
Additional Quantity variance due to additional six aircraft. (Quantity)	-1.5	-4.2
Schedule variance resulting from re-phasing of three aircraft in FY 2019 and 3 aircraft from FY 2020. (Schedule)	0.0	-9.4
Additional Schedule variance due to re-phasing of aircraft. (Schedule)	+19.0	+24.1
Adjustment for current and prior escalation. (Estimating)	+20.2	+23.1
Revised estimate reflects increase to Non-Recurring Engineering for product configuration changes. (Estimating)	+20.4	+24.8
Revised estimate to reflect increase due to cost estimating methodology updates for Airframe, Contractor Furnished Equipment, Government Furnished Equipment and Engineering Change Orders. (Estimating)	+14.9	+18.7
Revised estimate to reflect decrease and re-phasing of Ancillary Equipment. (Estimating)	-17.3	-19.9
Adjustment for current and prior escalation. (Support)	+4.2	+4.5
Decrease in Other Support cost reflects updated actuals of Peculiar Ground Support Equipment and Peculiar Training Equipment. (Support)	-4.0	-4.1
Increase in Initial Spares. (Support) (QR)	+4.2	+5.2
Procurement Subtotal	+857.7	+987.3

(QR) Quantity Related

MILCON	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-1.0
Scope increase due to inclusion of Advanced Airborne Sensor capability funding to cover Tactical Operations Center, Fleet Support Activity and Fleet Maintenance Activity requirements (Engineering)	+48.3	+58.9

Adjustment for current and prior escalation. (Estimating)	+0.9	+1.0
MILCON Subtotal	+49.2	+58.9

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: Increment 3 Critical Design Review Capabilities Integration
Contractor: The Boeing Company
Contractor Location: 7755 East Marginal Way South
Seattle, WA 98108
Contract Number: N00019-16-G-0001/1
Contract Type: Cost Plus Fixed Fee (CPFF)
Award Date: June 30, 2016
Definitization Date: August 05, 2016

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
71.6	N/A	0	157.9	N/A	0	143.0	143.0

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional awards to Boeing Defense Space and Security for Increment 3 (Inc 3) Wideband (WB) Satellite Communications (SATCOM) Radome development efforts.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/25/2018)	-9.1	-1.7
Previous Cumulative Variances	-3.1	-2.1
Net Change	-6.0	+0.4

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to overruns due to diverted efforts for development on Net Enabled Weapons as the top priority. Resources were reassigned to perform this work until November 2018.

The favorable net change in the schedule variance is due to implementation of a contract modification which rebaselined Block 2 efforts and extended the contract Period of Performance to July 31, 2019.

Notes

This contract (Cost-Plus-Fixed-Fee Delivery Order against Boeing Basic Ordering Agreement) supports the development of P-8A Inc 3 Engineering Change Proposal (ECP) 4 that provides Ultra High Frequency SATCOM Demand Assigned Multiple Access integrated waveform and Targeting Capability upgrades and ECP 5 that provides Link-16 message [Net Enabled Weapon (J11), third party targeting (J12), and Electronic Warfare coordination (J14)], High Frequency radio Internet Protocol, Integrated Broadcast Service (IBS) filters and new IBS receiver, and Harpoon II+. The contract was modified to include Inc 3 Block 2 and WB SATCOM Radome.

Contract Identification

Appropriation: Procurement
Contract Name: P-8A Production Contract for FRP Lot VI
Contractor: The Boeing Company
Contractor Location: 7755 East Marginal Way South
Seattle, WA 98105
Contract Number: N00019-14-C-0067/0
Contract Type: Fixed Price Incentive(Firm Target) (FPIF), Firm Fixed Price (FFP)
Award Date: August 14, 2014
Definitization Date: August 27, 2015

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
295.6	N/A	0	1239.5	1246.9	9	1239.5	1239.5

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional awards to Boeing Defense Space and Security for Advanced Procurement and FRP Lot VI and associated spares, support equipment, technical data/publications, tools, training devices, and long lead materials.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FPIF/FFP) contract.

General Contract Variance Explanation

Cost and schedule variances are not reported for this contract, because a Class Deviation from Defense Federal Acquisition Regulation Supplement Subpart 234.2 was approved by the Deputy Assistant Secretary of the Navy (Acquisition and Procurement) on September 30, 2014. This Class Deviation authorizes the removal of EVM requirements from the P-8A FRP Lots V - VII contracts.

Notes

As of November 14, 2017, all nine FRP Lot VI USN aircraft were delivered to the fleet.

This contract is more than 90% complete; therefore, this is the final report for this contract.

Contract Identification

Appropriation: Procurement
Contract Name: P-8A Production Contract for FRP Lot VII
Contractor: The Boeing Company
Contractor Location: 7755 East Marginal Way South
Seattle, WA 98108
Contract Number: N00019-14-C-0067/2
Contract Type: Fixed Price Incentive(Firm Target) (FPIF), Firm Fixed Price (FFP)
Award Date: January 28, 2016
Definitization Date: January 28, 2016

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
2210.1	2230.2	16	2329.9	2351.5	18	2329.9	2329.9

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional awards to Boeing Defense Space and Security for Advanced Procurement and FRP Lot VII and associated spares, support equipment, technical data/publications, tools, training devices, and long lead materials. One additional FY 2014 funded and one additional FY 2016 funded aircraft were procured via the FY 2016 Lot 7 contract as a result of the Department of the Navy's Congressional notification of the use of Buy to Budget authority under 10 United States Code 2308 received on February 22, 2016.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FPIF/FFP) contract.

General Contract Variance Explanation

Cost and schedule variances are not reported for this contract, because a Class Deviation from Defense Federal Acquisition Regulation Supplement Subpart 234.2 was approved by the Deputy Assistant Secretary of the Navy (Acquisition and Procurement) on September 30, 2014. This Class Deviation authorizes the removal of EVM requirements from the P-8A FRP Lots V - VII contracts.

Notes

As of February 2018, four FRP Lot VII USN aircraft were delivered to the fleet.

Contract Identification

Appropriation: Procurement
Contract Name: P-8A Production Contract for FRP Lot VIII
Contractor: The Boeing Company
Contractor Location: 7755 East Marginal Way South
Seattle, WA 98108
Contract Number: N00019-14-C-0067/3
Contract Type: Firm Fixed Price (FFP)
Award Date: April 05, 2016
Definitization Date: March 30, 2017

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
235.3	N/A	0	1525.2	N/A	11	1525.2	1525.2

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional awards to Boeing Defense Space and Security for Advanced Procurement and FRP Lot VIII and associated spares, support equipment, technical data/publications, tools, training devices, and long lead materials.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP) contract.

General Contract Variance Explanation

Cost and schedule variances are not reported for this contract, because a Class Deviation from Defense Federal Acquisition Regulation Supplement Subpart 234.2 was approved by the Deputy Assistant Secretary of the Navy (Acquisition and Procurement) on December 10, 2015. This Class Deviation authorizes the removal of EVM requirements from the P-8A FRP Lots VIII - X contracts.

Contract Identification

Appropriation: Procurement
Contract Name: P-8A Production Contract for FRP Lot IX
Contractor: The Boeing Company
Contractor Location: 7755 East Marginal Way South
Seattle, WA 98108
Contract Number: N00019-14-C-0067/4
Contract Type: Firm Fixed Price (FFP)
Award Date: April 05, 2016
Definitization Date: December 21, 2017

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
858.2	N/A	7	858.2	N/A	7	858.2	858.2

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP) contract.

General Contract Variance Explanation

Cost and schedule variances are not reported for this contract, because a Class Deviation from Defense Federal Acquisition Regulation Supplement Subpart 234.2 was approved by the Deputy Assistant Secretary of the Navy (Acquisition and Procurement) on December 10, 2015. This Class Deviation authorizes the removal of EVM requirements from the P-8A FRP Lots VIII - X contracts.

Notes

This is the first time this contract is being reported.

FRP Lot IX contract awarded December 21, 2017 for seven USN P-8A aircraft.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	5	5	5	100.00%
Production	66	66	117	56.41%
Total Program Quantity Delivered	71	71	122	58.20%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	34513.3	Years Appropriated	17
Expended to Date	24780.9	Percent Years Appropriated	77.27%
Percent Expended	71.80%	Appropriated to Date	29917.5
Total Funding Years	22	Percent Appropriated	86.68%

The above data is current as of February 12, 2018.

Although RDT&E deliveries commenced with the first flight test aircraft (airworthiness, T-1), it is not included in the Planned or Actual deliveries since it is not a fully configured end item. The RDT&E delivered quantities include: the second flight test aircraft (mission equipped, T-2); the third flight test aircraft (mission equipped for weapon separation testing, T-3); and T-4, T-5 and T-6, System Development and Demonstration Stage II production representative aircraft. The fleet has taken delivery of 66 total production aircraft supporting fleet transition training and operational deployment. All aircraft have been delivered early or on-time to contracted delivery dates.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	February 05, 2018
Source of Estimate:	POE
Quantity to Sustain:	117
Unit of Measure:	Aircraft
Service Life per Unit:	25.00 Years
Fiscal Years in Service:	FY 2012 - FY 2047

All five of the P-8A RDT&E funded System Development and Demonstration test aircraft will remain as test articles and sustained with RDT&E funding. The Quantity to Sustain number of 117 reflects the 117 procurement funded aircraft.

Flight hours per aircraft per year are: P-8A = 627. The calculation is based on summing the total operational flight hours and dividing by total operational aircraft. P-8A operations are based on: one Fleet Replacement Squadron (12 aircraft) and 12 Fleet squadrons (7 aircraft each).

The total operating aircraft years of 2,459 is computed by summing the number of operational aircraft in each year of the 'Fiscal Years in Service' period which includes delivery ramp-up, steady-state operation, and aircraft retirement ramp-down phases.

Sustainment Strategy

The maintenance concept for the P-8A consists of organizational, intermediate, and depot level maintenance. Organizational and intermediate level maintenance is performed by organic personnel. Depot level maintenance is performed at a combination of organic and contractor facilities in accordance with United States Code Title 10 requirements. Supply chain management, another component of the sustainment strategy, was primarily provided by the prime contractor prior to Material Support Date and is now managed by Naval Supply Systems Command and the Defense Logistics Agency through competitively awarded contracts.

Antecedent Information

The Antecedent System is the P-3C aircraft. P-3C O&S costs are based on a 3-level maintenance system. P-3C data was pulled from the Naval Visibility and Management of Operating and Support Cost database Aircraft Type Model Series Report in November 2016 (BY 2010 dollar average for FY 2004-FY 2014). Aircraft quantities: P-3C = 150 Total Aircraft Inventory and 141 Primary Authorized Aircraft. Flight hours per aircraft per year are: P-3C = 502. The calculation is based on summing the total operational flight hours and dividing by total operational aircraft.

Indirect support for P-3C was estimated based on a ratio of mission personnel and intermediate maintenance government labor. Indirect support calculation now in alignment with P-8A calculation, by multiplying the Mission Personnel cost by a factor of 56.5%, which was determined by dividing the annual steady state P-8A Indirect Cost by the P-8A Mission Personnel cost.

Annual O&S Costs BY2010 $M		
Cost Element	**P-8A Average Annual Cost Per Aircraft**	**P-3C (Antecedent) Average Annual Cost Per Aircraft**
Unit-Level Manpower	3.843	3.733
Unit Operations	2.407	1.559
Maintenance	4.492	2.874
Sustaining Support	0.920	0.188
Continuing System Improvements	1.624	1.801
Indirect Support	2.173	2.109
Other	0.000	0.000
Total	15.459	12.264

Item	Total O&S Cost $M			
	P-8A			P-3C (Antecedent)
	Current Production APB Objective/Threshold		Current Estimate	
Base Year	38060.1	41866.1	38009.7	30157.2
Then Year	54490.4	N/A	54428.5	N/A

Equation to Translate Annual Cost to Total Cost

The annual cost per aircraft is derived by taking the total O&S cost and dividing it by the total operating aircraft years. ($38009.7 BY 2010 $M Total O&S Cost / 2,459 P-8A aircraft years = $15.459 BY 2010 $M Cost per operating aircraft per year).

O&S Cost Variance		
Category	**BY 2010 $M**	**Change Explanations**
Prior SAR Total O&S Estimates - Dec 2016 SAR	37334.5	
Programmatic/Planning Factors	560.8	Update for six additional aircraft (PB 2019 quantity changes) and extended O&S period due to later aircraft deliveries.
Cost Estimating Methodology	-274.6	Update of cost per flight hour delivery curve to account for cost ramp-up to steady-state, adjusted end-of-life costs to account for aircraft production ramp-down, and separated Material Support Date milestones for Increment 3 Block 1 and Increment 3 Block 2.
Cost Data Update	583.5	Update to repairable and consumable pricing, in-service repair cost per event and including an additional year of P-8A cost data (FY 2017) into VAMOSC averages.
Labor Rate	-81.2	Change to commercial common support equipment Contractor Logistics Support labor rates from Original Equipment Manufacturer labor rates and FY 2018 Military Composite Pay rate update.

Energy Rate	-381.8	Update to fuel cost per gallon.
Technical Input	268.5	Update for Program Related Logistics requirement update, Interim Support Item List Revision T parts list update and estimated number of P-8A in-service repairs per year.
Other	0.0	
Total Changes	675.2	
Current Estimate	38009.7	

Disposal Estimate Details

Date of Estimate: February 05, 2018

Source of Estimate: POE

Disposal/Demilitarization Total Cost (BY 2010 $M): Total costs for disposal of all Aircraft are 29.8

This Rough Order of Magnitude estimate will be refined as the System Disposal Plan Annex to the Life Cycle Sustainment Plan is developed.